WINGWALL PARAPET AND

BAR REINFORCEMENT

0'-4"

0'-8"

2'-0"

5'-101/2"

6'-3"

 $6'-7\frac{1}{2}'$

7'-0"

7'-41/2'

7′-9″

1 8'-11/2"

8'-101/2"

9'-71/2'

10'-3"

19'-0"

II'-2"

||'-||"

12'-0"

5″-0″

2 | 10'-10|/2''

2 | 11'-61/2'

2 8'-6"

2 9'-3"

2 | 10'-0"

2 3'-6"

B NO.REQ.D.

24

4

4

4

4

4

4

4

24

44

44

48

4

4

4

4

4

4

4

4

4

4

4

4

4

28

4

4

4

4

4

4

4

4

4

4

8

4

4

4

4

4

16

4

4

4

4

4

4

4

4

4

4

4

4

4

4

4

4

4

4

8

4

4

2"-1"

2"-1"

2"-1"

2"-1"

2"-1"

2"-1"

2"-1"

2**"**-1"

2"-1"

2"-1"

2"-1"

2"-1"

2"-1"

2'-0"

2'-1"

2'-1"

2'-1"

2'-1"

2'-1"

TYPE

MARK LENGTH

15'-9"

12'-7"

9'-11"

7′-3″

4'-6"

|'-||"

16'-9"

17'-2"

18'-3"

7'-11"

3'-0"

8'-II"

8'-61/2"

 $9'-3\frac{1}{2}''$

10'-01/2"

10'-91/2"

11'-6¹/2"

 $12'-3\frac{1}{2}"$

12'-8"

12'-11"

6'-2"

3'-8"

4'-1¹/4"

4'-3"

4'-4¾"

4'-6¹/₂"

4'-8¹/₄"

4'-10"

4'-II³/₄"

5'-3¹/₄"

21'-0"

13'-11"

14'-8"

14'-9"

7'-9"

5'-0¹/2"

5′-6″

5′-6⁷⁄8″

5′-7¾″

5′-8⁵/₈"

5'-9¹/₂"

5′-10³⁄₈″

5'-II^I/4"

6'-01/8"

6'-l"

5'-5"

5'-0"

44'-10"

38'-0"

44'-6"

603 4'-71/4"

603B 4'-10¾"

603D 5'-2¹/₄"

603E 5'-4"

603F 5'-5¾"

603A 4'-9"

13'-7¹/2"

14'-3¹/₂"

504K 5'-11/2"

504M | 5'-5"

504A 3'-9¾"

10'-5"

II'-2"

||'-||"

401

40IA

40IB

40IC

40ID

40IE

402

403

404

405

406

502

502A

502B

502D

502E

502F

502G

502H

502J

502K

502L

502M

504B

504C

504D

504E

504F

504G

504H

504J

504L

505

60I

60IA

60IB

60IC

60ID

603C

70IA

70ID

70IF

70IH

70IK

901

902

903

503

| STRAIGHT TYPE I | TYPE 2 | A TYPE 3 |
|--------------------------|-----------------------|-------------------|
| 2'-0" 2'-0" TYPE 4 | TYPE 5 | A IN SLAB TYPE 6 |
| A > | BARS A BARS C, D OR E | BARS A BARS B |



TYPE 8

BARS C,D OR E

BARS K,L,M OR N

SECTION BOTTOM SLAB

BARS B

BARS K,L,M OR N

SECTION-TOP SLAB

| BARR | EL REINFORC | EMENT DIMENSIONS | S AND QUANTITIES |) | |
|-------------------------------------|-------------|-------------------|-------------------|-------------------|-------------------|
| DESIGN | 1 | 2 | 3 | 4 | 5 |
| BARS A | 75I AT 14" | 752 AT I2" | 852 AT I2" | 853 AT I2" | 854 AT 12" |
| BARS B | 45I AT 14" | 552 AT 12" | 554 AT I2" | 654 AT 12" | 755 AT 12" |
| BARS C | 753 AT 14" | 753 AT 12" | 2-555 BETWEEN 852 | 2-65IBETWEEN 853 | 2-65IBETWEEN 854 |
| BARS D | 85I AT 14" | 2-652 BETWEEN 752 | 2-754 BETWEEN 852 | 2-754 BETWEEN 853 | 2-851BETWEEN 854 |
| BARS E | 652 AT 14" | 85I AT 12" | 2-652 BETWEEN 852 | 2-754 BETWEEN 853 | 2-754 BETWEEN 854 |
| BARS F | 55I AT 14" | 553 AT I2" | 653 AT I2" | 655 AT 101/2" | 656 AT 12" |
| BARS G | 452 AT 14" | 455 AT 12" | 457 AT I2" | 458 AT I2" | 460 AT 12" |
| BARS H | 453 AT 14" | 453 AT I2" | 453 AT I2" | 453 AT I2" | 453 AT 12" |
| BARS J | 454 | 454 | 454 | 454 | 454 |
| BARS K | - | - | I-456 | 2-459 AT 8" | 3-461 AT 8" |
| BARS L | - | - | 3-456 AT 6" | 3-459 AT 8" | 4-461AT 8" |
| BARS M | - | - | 2-456 AT 6" | 3-459 AT 8" | 4-461AT 8" |
| BARS N | - | - | 2-456 AT 6" | 3-459 AT 8" | 4-461AT 8" |
| T _i | " | 14" | 16" | 18" | 20" |
| T ₂ | " | 12" | 13" | 14" | 16" |
| W | 44'-10" | 45′-0" | 45′-2" | 45'-4" | 45′-8" |
| CU. YDS. CONCRETE PER FT. | 4.8715 | 5.7779 | 6.4114 | 7.0494 | 7.7737 |
| LBS.BAR REINFORCEMENT STEEL PER FT. | 515.1 | 655.6 | 826.5 | 948.7 | 1065.1 |
| HEIGHT OF FILL OVER TOP | 0' TO 10' | TO 20' | TO 30' | TO 40' | TO 50' |

3/7/03 9:30:35 AM \\GDOT-DSN/\GOPLOT\QCF\qo Tiff Output.acf darbyd M:\David\send to website\tempforchanaetotif\23/9b.prf

BARS C, D AND E THAT ARE SHOWN AS TWO BETWEEN BARS A SHALL BE EQUALLY SPACED BETWEEN BARS A

NOTE: THE DESIGN OF CULVERT SHALL BE DETERMINED BY THE MAXIMUM HEIGHT

OF FILL WITH ONLY A SINGLE DESIGN BEING USED FOR THE ENTIRE

| OF FILL WITH ONLY A | SINGLE DESIGN BEING | USED FOR THE ENTIRE | |
|---------------------|---------------------|---------------------|--|
| INSTALLATION. | | | |

| BA | ARREL S | SECT | ION BA | AR REIN | NFORCE | EMENT | DETAILS | ,) |
|------|---------|------|--------|---------|--------|--------|---------|--------|
| MARK | LENGTH | TYPE | Α | В | С | D | E | F |
| 451 | 44'-6" | 1 | | | | | | |
| 452 | II'-6" | 1 | | | | | | |
| 453 | 7'-9" | 1 | | | | | | |
| 454 | L-4" | 1 | | | | | | |
| 455 | 12'-0" | 1 | | | | | | |
| 456 | 4'-4" | 7 | 1'-2" | '- " | | | | |
| 457 | 12'-4" | 1 | | | | | | |
| 458 | 12'-8" | 1 | | | | | | |
| 459 | 4'-8" | 7 | 1'-2" | 1'-3" | | | | |
| 460 | 13'-0" | 1 | | | | | | |
| 461 | 5'-0" | 7 | 1'-2" | 1'-5" | | | | |
| 551 | II'-6" | 1 | | | | | | |
| 552 | 44'-8" | 1 | | | | | | |
| 553 | 12'-0" | 1 | | | | | | |
| 554 | 44'-10" | 1 | | | | | | |
| 555 | 7'-10" | 6 | 3'-2" | 4'-8" | | | | |
| 651 | 7'-9" | 6 | 3'-3" | 4'-6" | | | | |
| 652 | 7'-0" | 1 | | | | | | |
| 653 | 12'-4" | 1 | | | | | | |
| 654 | 45'-0" | 1 | | | | | | |
| 655 | 12'-8" | 1 | | | | | | |
| 656 | 13'-0" | | | | | | | |
| 751 | 51'-0" | 8 | 1'-3" | 7'-4" | 3'-0" | 6'-10" | 0'-7" | 2'-3" |
| 752 | 52'-4" | 8 | 1'-4" | 7'-4" | 2'-0" | 7'-4" | 0'-10" | 2'-6" |
| 753 | 7'-10" | 6 | 3'-4" | 4'-6" | | | | |
| 754 | 7'-2" | 1 | | | | | | |
| 755 | 45'-4" | | | | | | | |
| 851 | 7'-0" | 1 | | | | | | |
| 852 | 53'-6" | 8 | 1'-5" | 7'-0" | 2'-0" | 7'-0" | 1'-0" | 2'-8" |
| 853 | 54'-8" | 8 | 1'-6" | 6'-2" | 3'-0" | 5'-8" | 1'-2" | 2'-10" |
| 854 | 55'-8" | 8 | 1'-8" | 5'-10" | 3'-0" | 5'-4" | 1'-4" | 3'-0" |

STATE PROJECT NUMBER SHEET TOTAL SHEETS

GA.

QUANTITIES FOR FOUR WINGWALLS AND TWO PARAPETS

52.74 CU.YDS.CLASS "A" CONCRETE 7077 LBS.BAR REINFORCEMENT STEEL

ABOVE QUANTITIES COMPUTED TO BACK OF PARAPET AND INCLUDE ALL OF WINGWALL FOOTINGS, AND ALL OF BARS 501,404,405,406 & 701, AND .8333 X REINFORCEMENT STEEL QUANTITY FOR 2 FT. OF BARREL.

BOX CULVERT REQUIREMENTS:

MINIMUM FILL HEIGHT FROM TOP OF CULVERT TO BOTTOM OF BASE WITHIN TRAVELWAY SHALL BE 12 INCHES.

MAXIMUM POUR LENGTH SHALL NOT EXCEED 30 FEET ALONG THE LENGTH OF THE CULVERT.

TRANSVERSE CONSTRUCTION JOINTS SHALL BE PLACED IN THE BARREL, NORMAL TO THE CENTERLINE OF CULVERT, AT THE OUTSIDE SHOULDER BREAK POINTS. LONGITUDINAL BARREL REINFORCING STEEL SHALL NOT BE CONTINUOUS THROUGH THESE JOINTS, PROVIDED THAT THE JOINTS ARE MORE THAN 15 FEET FROM THE BARREL ENDS.

WHEN TRANSVERSE CONSTRUCTION JOINTS OCCUR WITHIN 15 FEET OF THE BARREL ENDS OR WITHIN THE LIMITS OF THE PAVEMENT, THE LONGITUDINAL BARREL REINFORCING SHALL THEN BE CONTINOUS THROUGH SUCH JOINTS. THE MINIMUM LENGTH OF LAP SPLICE FOR LONGITUDINAL REINFORCING SHALL BE 24 INCHES.

TRANSVERSE CONSTRUCTION JOINTS PLACED AT ANY OTHER LOCATION NOT SPECIFIED ABOVE SHALL BE FORMED WITH NO LONGITUDINAL REINFORCING STEEL PASSING THROUGH THE JOINTS.

| 11-5-01 | 16 -II | 7-22-81 | 6-9-9 | 8-27-63 | 3-27-59 | 11-27-57 | DATE | DEPAR | TMENT OF TRANSPORTATION State of Georgia |
|-------------------------|------------------------|-------------------------|---------------|-------------------------|-----------------------|---------------------------|----------|---|--|
| ADDED REQUIREMENT NOTES | REV. FILL HT. REQUIRED | CHG. APRON REF TO TOE W | QUANTITY NOTE | BAR TYPE 7 & QUANTITIES | BARREL REINF. DETAILS | WINGWALL STEEL QUANTITIES | REVISION | | STANDARD DRCED CONCRETE BOX CULVERT QUADRUPLE IO' x IO' EPTHS OF FILL UP TO 50 FEET OCTOBER 1957 |
| | | R.M.U. | R.M.U. | J.T.K. | G.U.M. | E.E.L. | ВҮ | DESIGNED J.T.K. DRAWN J.T.K. TRACEDH.K.LB.J.S. CHECKED E.E.L. | |